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PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031

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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	10/662,765	
	Filing Date	September 15, 2003	
	First Named Inventor	David H. KIL	
	Art Unit	Not yet assigned	
	Examiner Name	Not yet assigned	
Total Number of Pages in This Submission	9	Attorney Docket Number	ARC012010000

### ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <div>Remarks</div>	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): --Form PTO/SB/08A--3 pages --Form PTO/SB/08B--2 page --61 references + Return postcard
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### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Rimas T. Lukas Reg. No. 46,451
Signature	<i>Rimas T. Lukas</i>
Date	June 29, 2004

### CERTIFICATE OF TRANSMISSION/MAILING

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Typed or printed name	Rimas T. Lukas		
Signature	<i>Rimas T. Lukas</i>	Date	June 29, 2004

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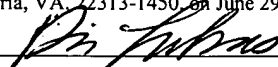
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PATENT  
Docket No. ARC012010000

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Rimas T. Lukas

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

David H. KIL

Serial No.: 10/662,765

Filing Date: September 14, 2003

For: INTERACTIVE AND AUTOMATED  
TISSUE IMAGE ANALYSIS WITH  
GLOBAL TRAINING DATABASE AND  
VARIABLE-ABSTRACTION  
PROCESSING IN CYTOLOGICAL  
SPECIMEN CLASSIFICATION AND  
LASER CAPTURE  
MICRODISSECTION APPLICATIONS

Examiner: Not yet assigned

Group Art Unit: Not yet assigned

INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. § 1.97

Commissioner for Patents  
P.O. Box, 1450  
Alexandria, VA 22313-1450

Dear Office:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Copies of the documents are also submitted herewith. The Examiner is requested to make these documents of record.

This Information Disclosure Statement is submitted:

- ☐ With the application; accordingly, no fee or separate requirements are required.
- ☒ Within three months of the application filing date or before mailing of a first Office Action on the merits; accordingly, no fee or separate requirements are required.
- ☐ After receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance.
  - ☐ A fee is required. A check in the amount of \* is enclosed.
  - ☐ A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below; accordingly, no fee is believed to be due.
- ☐ After mailing of a final Office Action or Notice of Allowance, but before payment of the issue fee.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a check in the amount of \* is enclosed.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.

Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

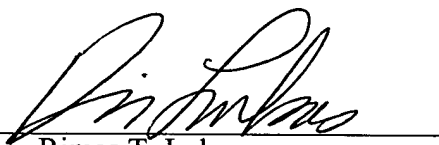
The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time.

Dated: June 29, 2004

Respectfully submitted,

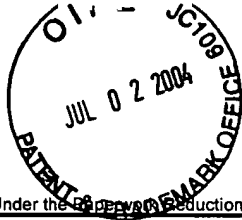
By:



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PTO/SB/08A (08-03)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2

of 5

**Complete if Known**

Application Number	10/662,765
Filing Date	September 15, 2003
First Named Inventor	David H. KIL
Art Unit	Not yet assigned
Examiner Name	Not yet assigned
Attorney Docket Number	ARC012010000

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	20	US- 5,870,493	02-09-1999	Vogl et al.	
	21	US- 5,875,108	02-23-1999	Hffberg et al.	
	22	US- 5,889,880	03-30-1999	Doerrer et al.	
	23	US- 5,920,360	07-06-1999	Coleman, Jr.	
	24	US- 5,920,477	07-06-1999	Hoffberg et al.	
	25	US- 5,939,278	08-17-1999	Boon et al.	
	26	US- 5,959,697	09-28-1999	Coleman, Jr.	
	27	US- 5,978,497	11-02-1999	Lee et al.	
	28	US- 5,985,085	11-16-1999	Baer et al.	
	29	US- 5,987,158	11-16-1999	Meyer et al.	
	30	US- 5,999,634	12-07-1999	Abbott et al.	
	31	US- 6,031,232	02-29-2000	Cohenford et al.	
	32	US- 6,061,471	05-09-2000	Coleman, Jr.	
	33	US- 6,134,354	10-17-2000	Lee et al.	
	34	US- 6,146,897	11-14-2000	Cohenford et al.	
	35	US- 6,148,099	11-14-2000	Lee et al.	
	36	US- 6,157,446	12-05-2000	Baer et al.	
	37	US- 6,181,811	01-30-2001	Kuan et al	
	38	US- 6,215,550	03-10-2001	Baer et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

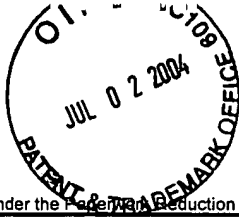
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

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of

5

**Complete if Known**

Application Number	10/662,765
Filing Date	September 15, 2003
First Named Inventor	David H. KIL
Art Unit	Not yet assigned
Examiner Name	Not yet assigned
Attorney Docket Number	ARC012010000

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	39	US- 6,215,892	03-10-2001	Douglass et al.	
	40	US- 6,240,209	05-29-2001	Wilcke	
	41	US- 6,259,807	07-10-2001	Ravkin	
	42	US- 6,327,377	12-04-2001	Rutenberg et al.	
	43	US- 6,337,926	01-08-2002	Takahashi et al.	
	44	US- 6,469,779	10-22-2002	Baer et al.	
	45	US- 6,495,195	12-17-2002	Baer et al.	
	46	US- 6,512,576	01-28-2003	Baer et al.	
	47	US- 6,569,639	05-27-2003	Liotta et al.	
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	48	WO 01/33190 A2	05-10-2001			
	49	WO 02/37159 A2	05-10-2002			
	50	EP 0 748 439 B1	07-21-1999			

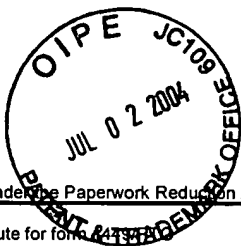
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		Examiner Name	Not yet assigned		
Sheet	4	of	5	Attorney Docket Number	ARC012010000

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	49	Anonymous "ChromaVision" website product description including Rare Cell Detection in Tissue and Rare Cell Detection in Cytospin Prep – retrieval date 6/21/04	
	50	Pizzi, A. "Diagnostic Cytology Learning Page" <a href="http://www-ocs.colorado.edu/-metzj/pizzia/learning_page.html">http://www-ocs.colorado.edu/-metzj/pizzia/learning_page.html</a> Written February 4, 1997, Last updated August 4, 1998	
	51	Duke University,. "Evaluation of Cervical Cytology", AHCPR publication No. 99-E010, Feb. 1999.	
	52	Jarkrans, T. "Algorithms for Cell Image Analysis in Cytology and Pathology", Comprehensive Summaries of Uppsala Dissertations, 1996.	
	53	Morruzzi, J.F. et al. "Quantification and classification of human sperm morphology by computer assisted image analysis" - Fertil. Steril. Volume 50 , Issue 1 pp 142-152, July 1988	
	54	Perez-Sanchez, F. "Morphometric Analysis of human sperm morphology" Int J Androl Volume 17 , Issue 5 pp 248-255, Oct 1994	
	55	Jeyendran, R.S. "Association of the in-vitro fertilizing capacity of human spermatozoa with sperm morphology as assessed by three classification systems" - Hum Reprod Volume 1 , Issue 5 pp 305-308, Aug 1986	
	56	Grohs, H.K. and Husain, O.A.N. Eds.: "Automated Cervical Cancer Screening" Publisher: Igaku-Shoin Medical Publishers, Chapter 23 pp 305-317, 1994.	
	57	Jarkrans, T. "Algorithms for Cell Image Analysis in Cytology and Pathology", Comprehensive Summaries of Uppsala Dissertations, 1996.	
	58	Salomie, A. et al. (2001). "Multivariate Techniques for Medical Image Segmentation," <a href="http://www.etro.vub.ac.be/members/deklerck.rudi/redimedia/segmentation/segment.htm">http://www.etro.vub.ac.be/members/deklerck.rudi/redimedia/segmentation/segment.htm</a>	

Examiner Signature		Date Considered	
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Sheet 5	of 5	Attorney Docket Number	ARC012010000

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	59	Schachter, B. J. et al. (1979). "Some Experiments in Image Segmentation by Clustering of Local Feature Values", Pattern Recognition, Pergamon Press Inc., Elmsford, NY, US vol	
	60	Jong-Min Park et al., (May 2002) "Analysis of active feature selection in optic nerve data using labeled fuzzy C-means clustering", 2002 IEEE World Congress on Computational Intelligence. 2002 IEEE International Conference on Fuzzy Systems, pgs. 1580-1585 vol. 2, 2002, Piscataway, NJ, USA, IEEE, ISBN: 0-7803-7280-8.	
	61	Frosini, G. et al, (July 2000). "A modified fuzzy C-means algorithm for feature selection", Peachfuzz 2000, 19th International Conference of the North American Fuzzy Information Processing Society, pgs. 148-152, 2000, Piscataway, NJ, USA, IEEE, ISBN: 0-7803-6274-8.	
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Examiner Signature		Date Considered	
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